

ST



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,445	01/10/2002	Leland Bruce Traylor	0032/010321	8614

7590 07/08/2003

ALBERTO A. LEON, ESQ.
BAUMAN, DOW & McINTOSH
P.O. BOX 30684
ALBUQUERQUE, NM 87109-0684

EXAMINER

COLLINS, GIOVANNA M

ART UNIT	PAPER NUMBER
----------	--------------

3679

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,445

Applicant(s)

TRAYLOR, LELAND BRUCE

Examiner

Giovanna M. Collins

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show means to attach the jacket to the single continuous structure as described in the specification or the jacket is wrapped in a spiral pattern. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 12, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Knight ('476).

Knight discloses (see Figs. 13-15) a method to install the submersible pump into the well comprising:

(a) engaging the mechanical suspension means (318), flexible tubular conduit (314) and the electrical cable (316) to the pump ;

Art Unit: 3679

- (c) attaching the flexible tubular conduit and the electrical cable to the mechanical suspension means starting immediately above the pump using a jacket (314) or jackets attached to this single continuous structure tightly enough so that the mechanical loads are fully transferred to the mechanical suspension means as the single structure is installed into the well; and
- (d) lowering the pump (see Fig.15) into the well by playing out the mechanical suspension means, the tubular conduit and the electrical cable at the same rate each from a separate reel; and
- (e) locking the pump and all associated loads at the appropriate depth level in the well.

Referring to claim 14, Knight discloses wherein a plurality of jackets (302) are attached periodically to the single continuous structure, said jackets comprising clamping means wrapped around the single structure at multiple points.

Referring to claim 15, Knight discloses whereon the clamping means (302) are made out of plastic, metal or rubber.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,3,4, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight ('476) in view of Applicant's Disclosure.

Art Unit: 3679

Knight discloses (see Figs. 11 and 13-15) a single continuous structure engaged to a submersible pump and to all associated loads comprising:

- (a) a mechanical suspension means (318') acting as a primary load bearing element, said mechanical suspension means being formed into a long cylinder or rope and being spooled into a reel allowing said mechanical suspension means to be played off the reel into a well in a continuous fashion;
- (b) a flexible tubular conduit (314') capable of conveying fluids from the submersible pump to the earth's surface having sufficient strength to withstand the pressure of the pumped fluid;
- (c) an cable (316') capable of conveying electrical power from the earth's surface to the submersible pump, said cable having insulation means;
- (d) a jacket (302') attached to the single continuous structure tightly enough so that the mechanical loads are fully transferred to the mechanical suspension means as the single structure is installed into the well;

Knight does not disclose a means to means to attach the jacket to the single continuous structure. However, in the amended Specification page 4, lines 15-17. Applicant states that banding machines are well known in the art and commonly used to automatically band electrical cable to production tubing in conventional submersible pump installations. Therefore it would be obvious to one skilled in the art at the time of the invention to modify Knight to have a means to automatic attach the jacket to the structure as the Applicant's disclosure teaches because banding machines are well known in the art and commonly used to automatically band electrical cable to production tubing in conventional submersible pump installations.

Art Unit: 3679

Referring to claim 3, Knight discloses wherein the flexible tubular conduit (314') and the electrical cable (315') are attached to the mechanical suspension means (318') at periodic intervals.

Referring to claim 4, wherein the mechanical means is made out of a flexible metallic material (see col. 2, lines 45-46).

Referring to claim 8, Knight discloses wherein the flexible tubular conduit is made out of plastic (see col. 2, lines 35-40).

Referring to claim 11, Knight discloses wherein the electrical cable (318') is unarmored.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight ('476) in view of Applicant's Disclosure as applied to claim 1 above, and further in view of Ray ('665).

Knight, as modified, discloses the structure of claim 1 but does not disclose the flexible tubular conduit and electrical cable are attached to the mechanical suspension means continuously. Ray teaches that tape wrapping is another fastener for attaching elongated bodies to cables (see col. 6, lines 46-48). Therefore it would be obvious to one skilled in the art at the time of the invention to further modify the structure disclosed by Knight to have the conduit and cable attached to the mechanical suspension means continuously with tape wrapping as taught by Ray because it is another type of fastener that can be used to attach elongated bodies to cables.

7. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight ('476) in view of Applicant's Disclosure as applied to claim 1 above, and further in view of Isaacs ('708).

Art Unit: 3679

Knight, as modified discloses the structure of claim 1 but does not disclose the mechanical suspension means is made out of a non metallic material. Isaac teaches a suspension means (3) that is made out of a non-metallic material (see col. 5, lines 48-55). Isaac teaches that non metallic materials are more resistant to corrosion and more economical to install and maintain (see col. 3, lines 30-45). Therefore it would be obvious for one skilled in the art at the time of the invention to further modify the structure disclosed by Knight to have the mechanical suspension means be made out of non-metallic material as taught by Isaacs because there are more resistance to corrosion and more economical to install and maintain.

Referring to claim 9, Knight, as modified discloses the structure of claim 1 and that the conduit is made out of plastic but does not plastic has metallic or non-metallic fibers. Isaac teaches tubular conduit made of plastic reinforced with other materials (see col. 4, lines 63-37). Isaac teaches the reinforcing provides extra strength (see col. 4, line 67). Therefore it would be obvious to one skilled in the art at the time of the invention to further modify the structure disclosed by Knight to made the tubular conduit out of plastic with metallic or non-metallic fibers as taught by Isaacs to strengthen the conduit.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight ('476) in view of Applicant's Disclosure as applied to claim 1 above, and further in view of Brookbank ('169).

Knight, as modified, does not disclose that the electrical cable is armored. Brookbank teaches an electrical cable for downhole equipment that is armored (see col. 2, lines 10-15). The armor protects the cable from damage and provides additional electrical insulation. Therefore it

Art Unit: 3679

would be obvious to one skilled in the art at the time of the invention to further modify the structure disclosed by Knight to have electrical cable be armored as taught by Brookbank in order to protect the cable and provide additional electrical insulation.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight ('476) in view of Applicant's Disclosure and Morgan et al. ('117).

Knight discloses the structure of claim 12 but does not disclose the jacket is wrapped to the structure automatically as the pump and associated loads are installed or the jacket comprises a nonmetallic adhesive taped in a spiral pattern. In the amended Specification page 4, lines 15-17. Applicant states that banding machines are well known in the art and commonly used to automatically band electrical cable to production tubing in conventional submersible pump installations. Morgan et al. teaches that spirally wrapped nonmetallic adhesive tape is used to secure cables to other objects.(see Fig. 7 and col. 6, lines 45-55). Therefore it would be obvious to one skilled in the art at the time of the invention to further modify the structure disclosed by Knight jacket is wrapped to the structure automatically as the pump and associated loads are installed as taught by the Applicant's discloses because banding machines are well known in the art and commonly used to automatically band electrical cable to production tubing in conventional submersible pump installations and to have the jacket made of a nonmetallic adhesive taped in a spiral pattern as taught by Morgan et al. because spirally wrapped nonmetallic adhesive tape is used to secure cables to other objects.

Art Unit: 3679

Response to Arguments

10. Applicant's arguments with respect to claims 1-5 and 8-15 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 7:30-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

gmc
June 26, 2003


DAVID BAGNELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600